

REMARKS

The present invention relates to a battery separator.

In the previous Office Action, it is appreciated that the Examiner withdrew the previous rejections under 35 U.S.C. § 103 based on the Takana reference (EP 0 834 938 A2) and the prior art rejections based on Aikawa et al. (U.S. Patent 6,468,651) under 35 U.S.C. § 102(e) and 103. However, claims 1, 5 - 9, 12 - 14, 17 - 22, 24 - 26, 28 - 33, 35 - 37 and 39- 44 have now been rejected under 35 U.S.C. § 103(a) based on JP 2000-160432 (Aikawa '432). Furthermore, claims 15, 27, and 38 were rejected under 35 U.S.C. § 103(a) based on Aikawa '432 in view of the previously cited Tanaka reference, the later being cited as treating a non-woven for hydrophilic properties.

The Examiner has referred to various portions of the Aikawa '432 reference as assumedly teaching various features of the present invention. Furthermore, the Examiner asserts that the limitations of the independent claims and various preferred embodiment claims with respect to thickness, total surface area, uniformity index and Young modulus would be obvious.

However, Applicants respectfully disagree. The combination of features in the presently claimed invention that renders the battery separator having the desired combination of properties in accordance with the present invention is not obvious in view of the Aikawa '432.

Notwithstanding the foregoing, Applicants have herein amended independent claims 1, 17, and 28 to incorporate the preferred embodiment features of claims 39, 41, and 43 respectively, with respect to the Young's modulus of high-modulus fibers being 65 cN/dtex or more, as an important distinguishing feature of the present invention.

There is no disclosure in the Aikawa '432 reference of the combination of characteristics which result in the battery separator having the desirable combination of characteristics as is obtained in the present invention *vis-à-vis* a conventional batter separator fabric (see, e.g., the comparative table at page 43 of the present specification). Again, for instance, as was pointed out previously, it is well known that a Young's modulus of commonly used fibers, including conventional polypropylene fibers and olefin composite fibers, is less than 50 cN/dtex, as was indicated by the documents previously submitted by Applicants as Attachments (A) and (B) with partial English translation thereof with the Amendment filed April 20, 2005.

Therefore, *a fortiori*, the presently claimed invention is unobvious and patentable over the prior art including the Aikawa '432 reference.

Accordingly, in view of the foregoing, it is respectfully submitted that the remaining amended claims 1, 5 - 9, 12 - 15, 17 - 22, 24 - 33, 35 - 38, 40, 42, and 44 are unobvious and patentable over the cited prior art of record and are now in condition for allowance. Early and favorable action is earnestly solicited.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 09/924,546

Attorney Docket No.: Q65791

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby earnestly solicited.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the local Washington, D.C. telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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